

WHAT IS CLAIMED IS:

1. A data recording system having at least one internal telephone (105), a switchboard (104) connected to said internal telephone for performing switching of telephone call connections of said internal telephone, and a telephone call recording apparatus (106) for recording communication data or voice data contents of telephone calls which are performed using said internal telephone, and comprising:

10 at least one memory card (110), and at least one mobile telephone (101) having interface means (201) for connecting to said memory card,

a computer network (108) for relaying data between computers,

15 a gateway (107) for relaying data from said telephone call recording apparatus to said computer network and for relaying data from said computer network to said telephone call recording apparatus, and

20 at least one computer (109) connected to said computer network for data communication and having interface means for connecting to said memory card,

wherein said mobile telephone comprises database means (208) having stored therein respective sets of information relating to a plurality of potential telephone call opposite parties in conjunction with telephone numbers of

5 said potential opposite parties, and means (201, 202) for storing in said memory card a telephone call data record containing the communication data contents or voice data contents of a telephone call performed using said mobile telephone and for reading out a part of said internally stored information which relates to an opposite party of said telephone call and including said information in said stored telephone call data record, and

10 wherein said telephone call data record is subsequently read out from said memory card and transmitted to said telephone call recording apparatus to be stored therein.

15 2. The data recording system according to claim 1, wherein following completion of a telephone call performed by said mobile telephone, said memory card is disconnected from said mobile telephone and is connected to said computer, and wherein said telephone call data record is read out from said memory card by said computer and transmitted via said computer network and said gateway to said telephone call recording apparatus, to be stored therein.

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25 3. The data recording system according to claim 1, comprising a public telephone network (103) which is

connected to said telephone switchboard and a mobile telephone base station (102) which is connected to said public telephone network and is in radio communication with said mobile telephone,

5 wherein, following completion of a telephone call performed by said mobile telephone, said telephone call data record is read out from said memory card by said mobile telephone and is transmitted via said mobile telephone base station, said public telephone network, and
10 said telephone switchboard to said telephone call recording apparatus, to be stored therein.

4. The data recording system according to claim 1, wherein said telephone call recording apparatus stores
15 telephone call data records transmitted from respective ones of a plurality of said memory cards in a data directory configuration which is determined in accordance with the identities of users of mobile telephones corresponding to said memory cards and in accordance with
20 said information relating to opposite parties which is attached to said telephone call data records.

5. The data recording system according to claim 1 wherein said mobile telephone further comprises means for
25 attaching, to said telephone call data record stored on

5 said memory card, data constituting a user identifier relating to a user of said mobile telephone, wherein when said memory card is connected to said computer said user identifier is transmitted to said telephone call recording apparatus via said computer network and said gateway, and wherein said telephone call recording apparatus comprises means responsive to reception of said user identifier for transmitting to said computer, via said gateway and said computer network, a telephone call data record corresponding to said user, to be stored on said memory card.

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15 6. The data recording system according to claim 5, wherein said mobile telephone comprises means for recording, within a telephone call data record, recording start time data indicative of a time at which recording of said communication data contents or voice data contents of a telephone call corresponding to said telephone call data record was started, and wherein said recording start time data and said opposite party identifier are transmitted to said telephone call recording apparatus from said memory card when said memory card is connected to said computer, and wherein when said opposite party identifier is identical to an opposite party identifier of said telephone call data record that is stored at said telephone

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call recording apparatus and said telephone call data record that is stored at said telephone call recording apparatus has been recorded subsequent to said telephone call data record currently stored in said memory card, said 5 telephone call data record that is stored at said telephone call recording apparatus is transmitted to be stored in said memory card, while otherwise, said telephone call data record is not transmitted to be stored in said memory card.

10 7. The data recording system according to claim 6, wherein said telephone call recording apparatus comprises switchboard communication control means (801) for controlling communication with said telephone switchboard, gateway communication control means (802) for 15 controlling communication with said gateway, data recording means (803) for storing communication data or voice data of a telephone call performed using said internal telephone (105), as a telephone call data record which includes said recording start time data and said 20 opposite party identifier, and for storing said telephone call data record which is transmitted from said memory card, telephone call recording apparatus control means (804) for performing overall control of operation of said 25 telephone call recording apparatus, and

telephone call data judgement means (803) for
comparing respective opposite party identifiers of said
telephone call data record stored in said telephone call
recording apparatus and said telephone call data record
5 transmitted from said memory card, and for judging a time
precedence relationship between respective recording
starting times indicated by said recording start time data
of said telephone call data record stored in said telephone
call recording apparatus and said telephone call data
10 record transmitted from said memory card.

8. The data recording system according to claim 1,
wherein said mobile telephone comprises means is operable
to selectively record main point time data in said
15 telephone call data record, with said main point time data
indicating for each of one more main points constituted by
specific portions of said communication data contents or
voice data contents a start time point and an end time
point of said main point, with each said start time point
20 and end time point expressed as an amount of elapsed time
with respect to a starting time point of recording said
communication data contents or voice data contents.

9. The data recording system according to claim 8,
25 wherein said mobile telephone comprises

main point recording means (1003, 1011) responsive to a predetermined actuation of said dialing keys (1010) for recording an amount of time which has elapsed from the start of recording said communication data contents or voice data contents of a telephone call, as a time amount indicative of a starting point of recording a main point or an end point of recording a main point, and

main point data storage means (1012) for extracting said main points from communication data contents or voice data contents of said telephone call data record stored in said memory card, in accordance with said amounts of elapsed time which are recorded by said main point recording means, following completion of recording said communication data contents or voice data contents.

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10. The data recording system according to claim 9, wherein said mobile telephone further comprises display means (1009) and means (1003) for controlling said display means, when said main points of a telephone call are being recorded, to display information which is indicative of the occurrence of said main point recording.

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11. The data recording system according to claim 1,
wherein

when a telephone call is transferred from said mobile telephone to said internal telephone, or from said internal telephone to said mobile telephone, data constituting a call transfer designator is attached to a telephone call data record containing communication data or voice data contents of a part of said transferred call which was performed using said mobile telephone, and which is stored in said memory card, and an identical call transfer designator is attached to a telephone call record containing communication data or voice data contents of a part of said transferred call which was performed using said internal telephone, which is stored in said telephone call recording apparatus, and wherein

when said telephone call data record is transmitted from said memory card to said telephone call recording apparatus, said telephone call recording apparatus combines the respective communication data or voice data contents of each of said telephone call data records into a single set of communication data or voice data.

12. The data recording system according to claim 11, wherein said telephone call recording apparatus comprises switchboard communication control means (1401) for controlling communication via said telephone switchboard,

gateway communication control means (1402) for controlling communication with said gateway,

data recording means (1403) for recording and storing communication data or voice data of a telephone call

5 performed using said internal telephone (105), as a telephone call data record which includes said opposite party identifier, and for storing said telephone call data record which is transmitted from said memory card,

10 telephone call recording apparatus overall control means (1404) for performing overall control of operation of said telephone call recording apparatus, and functioning, when a notification is received from said telephone switchboard that a telephone call received by said internal telephone is a transferred call, to control said data recording means to attach said call transfer designator to said telephone call data record of said telephone call that is recorded and stored by said data recording means, and

15 recorded data judgement means (1405) functioning when a telephone call data record is transmitted from said memory card for:

20 analyzing said telephone call data record to detect the presence of said call transfer designator attached to said record, when said call transfer designator is detected therein;

determining whether there is a telephone call data record that has been recorded by said data recording means which has said call transfer designator attached thereto; and

5 when such a telephone call data record recorded by said data recording means is found, judging whether said telephone call data record and said telephone call data record transmitted from said memory card contain data of the same telephone call.

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13. The data recording system according to claim 12, wherein

15 when a telephone call performed using said mobile telephone is set in a waiting condition and said telephone call is transferred to said internal telephone, said call transfer designator is attached to said telephone call data record stored in said memory card by said mobile telephone,

20 when said data recording means receives notification sent from said telephones switchboard that said telephone call is transferred to said internal telephone, and begins to record the communication data or voice data of said telephone call in a telephone call data record with said call transfer designator attached, and

25 following termination of recording said communication data or voice data of said telephone call by said data

recording apparatus, when said telephone call data record stored in said memory card has been transmitted to said telephone call recording apparatus, said recorded data judgement means compares said transmitted telephone call data record with each of respective telephone call data records stored in said data recording means, and when a telephone call data record stored in said data recording means is found to have said call transfer designator attached thereto and to contain an opposite party identifier that is identical to an opposite party identifier in said telephone call data record transmitted from said memory card, combines said communication data or voice data contents of said telephone call data record that has been stored in said data recording means with said communication data or voice data contents of said telephone call data record which has been transmitted from said memory card.

14. A data recording system according to claim.1, wherein
20 said mobile means for internally storing information relating to potential telephone call opposite parties and for inserting a part of said information into said telephone call data record comprises
25 telephone directory database means (208) having stored therein for each of a plurality of potential telephone call

opposite parties, a telephone number of said potential telephone call opposite party in conjunction with a set of information relating to said potential telephone call opposite party, and

5 database linkage means (207) controllable for relating one of said sets of information stored in said telephone directory database means to an opposite party of a telephone call which is being performed by said mobile telephone, for reading out said set of information.

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15. A mobile telephone for use in a data recording system having a telephone switchboard (104) for performing switching of telephone call connections of said internal telephone, and a telephone call recording apparatus (106) for recording communication data or voice data contents of telephone calls which are communicated through said telephone switchboard, the mobile telephone comprising memory card connection means (201) serving as an interface for connecting said memory card,

20 radio communication means (202) for performing communication via a base station,

data recording means (204) for recording, in a telephone call data record stored on a memory card, communication data contents or voice data contents of a

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telephone call which is communicated via said radio communication means,

audio input means (205) for inputting a voice signal,

5 audio output means (206) for rendering a voice signal audible,

telephone directory database means (208) having stored therein, for each of a plurality of potential telephone call opposite parties, a set of related data concerning said opposite party, said set of related data including at 10 least a telephone number and an identifier of said opposite party,

15 database data linkage means (207) for relating an opposite party of a telephone call which is being performed using said mobile telephone to a corresponding one of said sets of related data held in said telephone directory database means,

20 a set of dialing keys (1010) operable for inputting telephone numbers, and for inputting commands to designate starting and ending of recording of each of respective main points within said communication data or voice data contents of a telephone call performed using said mobile telephone,

25 main point recording means (1011) responsive to said commands designating starting and ending of recording of said main points for recording, for each of said main

points, respective amounts of time which elapse from a time point of starting recording of said communication data or voice data contents until the start of recording said main point and until the end of recording said main point, and

5 main point data storage means (1012) functioning in accordance with said values of elapsed time which are recorded by said main point recording means for reading out and storing portions of said communication data or voice data stored in said memory card which constitute the 10 recorded data of said main points, following completion of recording said communication data or voice data contents of said telephone call.

15 16. The mobile telephone according to claim 15, comprising display means (1009) and means (1003) for controlling said display means, when said main points of a telephone call are being recorded, to display information which is indicative of the occurrence of said main point recording.

20 17. The mobile telephone according to claim 15, wherein said values of elapsed time corresponding to said main points are transferred via said memory card connection means to be successively stored in said memory card together with said communication data or voice data 25 contents of said telephone call.